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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,282	02/20/2001	Roger G. Etter	ENV1298-0021	4587
8698	7590	04/22/2004	EXAMINER	
STANDLEY LAW GROUP LLP 495 METRO PLACE SOUTH SUITE 210 DUBLIN, OH 43017			GRIFFIN, WALTER DEAN	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/763,282

Applicant(s)

ETTER, ROGER G.

Examiner

Walter D. Griffin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-31 and 33-82 is/are pending in the application.
- 4a) Of the above claim(s) 15-18, 33 and 73-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-31, 34-72, 81 and 82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The rejections described in paper no. 7 are withdrawn in view of the amendment and remarks contained therein. The applied references do not disclose adding at least one chemical compound to the coke in a coke quenching step. However, upon further consideration, new grounds of rejection are made as detailed below.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 15-18 and 73-76, drawn to a method for producing energy and removing undesirable flue gas components.

Group II, claim(s) 19-31, 34-72, 81, and 82, drawn to a method of making coke and the coke product.

Group III, claim(s) 77-80 and 33, drawn to a method of making coke and the coke product.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special

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technical features for the following reasons: The coke used in the processes of Group I has characteristics that are not claimed in the inventions of Groups II and III. Likewise, the process of Group II includes the feature of adding a compound during the quenching portion of the process whereas the process of Group III does not contain this feature. Therefore, the coke products produced in the processes of Groups II and III would have different characteristics.

During a telephone conversation with Jeffrey Norris on April 6, 2004 a provisional election was made with traverse to prosecute the invention of Group II, claims 19-31, 34-72, 81, and 82. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-18, 33, and 73-80 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Double Patenting

Applicant is advised that should claim 34 be found allowable, claim 81 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 21 and 66-72 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 is indefinite because the expression "said VCMs" lacks proper antecedent basis in claim 19.

Claims 66-72 are indefinite because claim 66 depends on canceled claim 32. Therefore, the scope of each claim cannot be ascertained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 19-27, 29-31, 34-72, 81, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamson (US 3,684,697) in view of DE 19540780A1.

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The Gamson reference discloses a process for producing a sponge coke. The process comprises obtaining a coke precursor material derived from crude oil such as residual hydrocarbon from distillation processes and mixing it with another material such solid residue from synthesis of plastics (e.g., polyethylene and polypropylene) or aromatic oils. The mixture is then subjected to delayed coking conditions to produce the sponge coke. The coke is cooled and then recovered. The addition of the material to the precursor would necessarily improve the adsorption characteristics of the resulting coke. Also, since the process of Gamson is similar to the claimed process, the resulting coke would appear to have VCM amounts within the claimed ranges. See entire document.

The Gamson reference does not disclose adding at least one chemical compound to the coke in a coke-quenching portion of the thermal cracking process.

The DE 19540780A1 discloses the quenching of coke with an aqueous solution that contains iron salts, sodium salts, and oxygen-containing compounds. See entire document and the English language abstract.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gamson by including the quenching step disclosed by the DE 19540780A1 reference because atmospheric pollution will be reduced. The coke resulting from the modified process would appear to have the claimed characteristics including containing a sulfur sorbent since sodium salts would be added by the quenching step of the DE 19540780A1 reference.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gamson (US 3,684,697) in view of DE 19540780A1 as applied to claim 25 above, and further in view of Yan (US 4,096,097).

The previously discussed references do not disclose or suggest calcining the coke.

The Yan reference discloses that the calcination of sponge coke results in the production of coke that is suitable for the manufacture of electrodes. These electrodes can be used in aluminum production processes. See column 5, line 54 through column 6, line 58.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the combined teachings of the previously discussed references by calcining the coke as suggested by Yan because the resulting coke will have characteristics that make it suitable for use in aluminum production processes.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 19-31 and 82 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 19-21 of U.S. Patent No. 6,168,709 in view of DE 19540780A1.

The patented claims disclose a process for making a coke. The patented claims do not include the step of adding a chemical to the coke during the quenching step.

The DE 19540780A1 reference discloses the quenching of coke with an aqueous solution that contains iron salts and oxygen-containing compounds. See entire document and the English language abstract.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the patented claims by including the quenching step disclosed by the DE 19540780A1 reference because atmospheric pollution will be reduced. The coke resulting from the modified process would appear to be the same as that which is claimed in the present application.

Claims 19-31, 34-72, 81, and 82 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-56 of copending Application No. 09/556132. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed to essentially the same coking process with the specification of various waste materials varying between the claims in the present application and the claims in 09/556132. The invention as a whole would have been obvious to one having ordinary skill in the art since both sets of additives have common elements, e.g., wood wastes.

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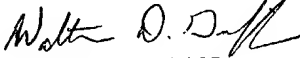
This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Walter D. Griffin
Primary Examiner
Art Unit 1764

WG
April 6, 2004